



PLANT MATERIALS PROGRAM BRIEFS

JIMMY CARTER PLANT MATERIALS CENTER
AMERICUS, GEORGIA

JULY, 2001

Jimmy Carter PMC
295 Morris Drive
Americus, GA 31709
Phone (229) 924-4499
Fax (229) 924-0013

Plant Materials Team

Donald Surrency
Plant Materials Specialist

Mike Owsley
PMC Manager

Malcome Kirkland
PMC Asst. Manager

Larry Vanzant
Bio Technician



2nd Annual Native Grass/Wildlife Field Day – A Success

The 2nd Annual Native Grass/Wildlife Field Day was held at the Jimmy Carter Plant Materials Center on June 20, 2001. The Lamar County and Lower Chattahoochee River Soil and Water Conservation Districts sponsored the event.



Native plants in general and grasses in particular has received national attention because they have the potential to address many conservation problems and resource concerns that benefit soil and water conservation district programs. This center is conducting studies on native warm-season grasses to develop and transfer plant technology that relates to planting techniques, optimum seeding rates and management. Native grasses are very important in the Bob White Quail Initiative in Georgia. They provide wildlife cover, food, nesting areas and buffers for escape.

The field day provided the opportunity to highlight the plant program, projects, on-going studies and products the center provides. The plant technology developed impacts soil and water conservation programs in five (5) states Georgia, Alabama, South Carolina, North Carolina, a portion of Tennessee and the Panhandle of Florida.

The Jimmy Carter Plant Materials Center in Americus, Georgia has developed most of the plant technology that is needed to establish and manage native warm season grasses in the Southeast.

Approximately 110 people attended the field day activities. The tour stations included the following points of interest.

- Eastern Gamagrass Rotational Grazing System
- Alamo Switchgrass Rotational Grazing System
- Mixed Pasture System
- Indiangrass
- Native Grass Invasive Plant Study
- Silvopasture Demonstration
- Big Bluestem
- Native grasses for buffers, odd areas, and wildlife habitat development
- Carbon Sequestration
- Alternative crops for small farmers

Evaluation of Native Warm Season Grasses as A Sustainable Bio-energy Crop

Warm season perennial grasses have long been used for soil conservation, livestock feed, wildlife habitat and other uses. An emerging role for high yielding, warm season grasses may be alternative energy sources for generating electricity through thermal combustion or by converting the biomass into transportation fuel. This form of renewable energy is known as bio-energy. Bio-energy crops could be grown on marginal cropland as an alternative cash crop. In addition to providing a source of income for farmers, other benefits of bio-energy crops include less dependence on foreign oil suppliers, sequestering carbon and improving wildlife habitat.

The plant materials center is working cooperatively with the U.S. Department of Energy, through the Oak Ridge national Laboratory (ORNL) to investigate perennial warm season grasses as bio-energy crops for marginal crop in the southeastern U.S. Switchgrass, eastern gamagrass, big bluestem are included in this investigation.

For more detailed information, contact the PMC at (912) 924-4499.

National Importance of Plant Materials to NRCS' Mission

The information provided is a 2000 summary report of the accomplishment of the Plant Materials Program nationwide.

WRITTEN TECHNOLOGY TRANSFER

Type of Publication	Number by PMC	Number by PMS	Total
Tech Notes	36	15	51
Standalone	8	9	17
Plant Guides and Fact sheets	68	33	101
Popular Articles	152	35	187
Referred Articles	4	0	4
Symposiums and Posters	75	21	96
Annual Technical Reports	6	0	6
Progress Reports	88	4	92
TOTAL PUBLICATIONS	437	117	554

Oral Technology Transfer

Type of Presentation	Number by PMC	Number by PMS	Total
Training Sessions	65	47	112
Tours	138	26	164
Local Presentations	205	91	296
Regional Presentations	56	26	82
National Presentations	16	4	20
International Presentations	6	5	11
TOTAL PRESENTATIONS	486	199	685

These Presentations were given to 43,848 people.

COMMERCIAL SEED AND PLANT PRODUCTION

Type of Production	lbs. of seed	Number of Plants	Dollar Value
Foundation	9,950		\$ 150,170
Certified	7,812,520		\$45,954,268
Common	8,675,177		\$48,282,329
Plants		735,059,136	\$27,882,817
TOTAL	16,497,647	735,059,136	\$122,269,584

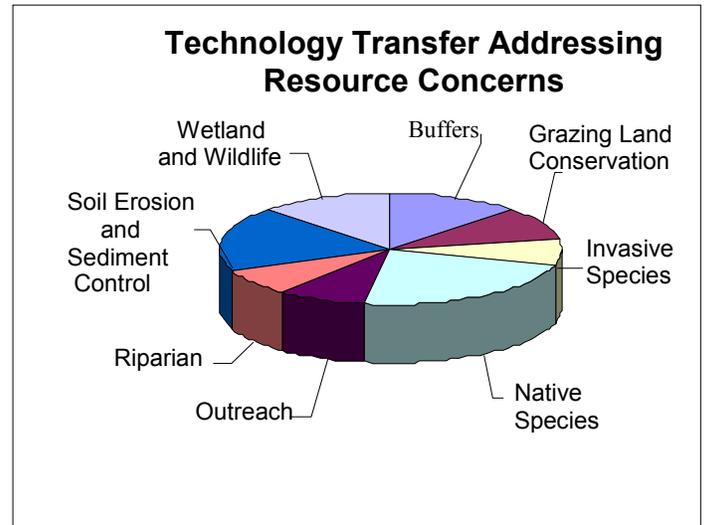
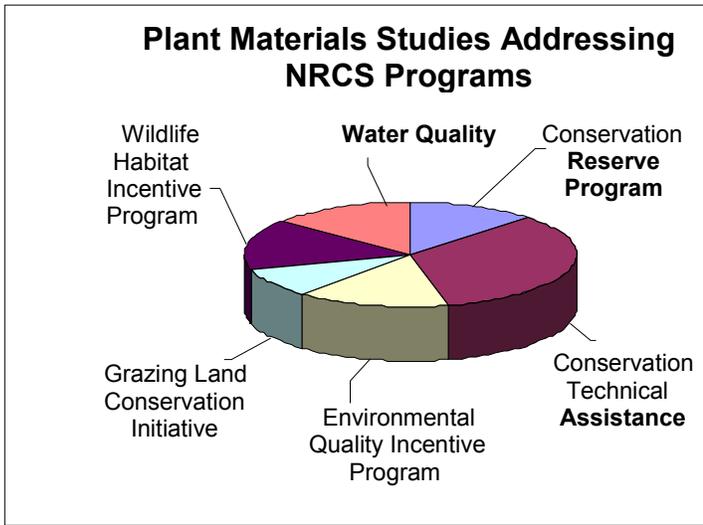
Plant Materials Centers had 564 studies in 2000. There were 58,968 plots within these studies and plots X number of evaluations equaled 167,001. There was 24 New Releases in 2000.

Plant Materials Specialists had 1,298 Field Plantings and 414 Conservation Field Trials in 2000.

Plant Materials Centers spend 28% of their time on Technology Development, 20% on Technology Transfer, 28% on Seed/Plant Production, 14% on Facility or Land Maintenance, and 10% on other activities.

Plant Materials Specialists spend 32% of their time on Technology Development, 47% on Technology Transfer, 8% on Seed/Plant Production, 2% on Facility or Land Maintenance, and 11% on other activities.

The scope of plant materials work is illustrated by the diagram below along with the type of resource concern that the program addresses.



Progress in Completing Projects and Studies at PMC

- Indiangrass Release** – Release notice is about 90% complete. This will be an exclusive release with the University of Georgia. Coordinating with Joe Bouton, PhD, UGA plant breeder, to complete the plant release application. The release notice will be completed for review by the PMC technical and advisory committee meetings in July.
- Eastern Gamagrass Release** – A joint release between the Jimmy Carter and Jamie L. Whitten PMC's is tentatively planned for 2002.
- Eastern Gamagrass Grazing Demonstration** – Steers will be provided by the Lamar County S&WCD for the eastern gamagrass grazing demonstration. We have obtained some important and valuable information on managing eastern gamagrass under grazing conditions in the Southeast.

- **Silvo-Pasture Project** - A silvo-pasture project was established at the PMC in February. Long leaf pine trees were planted in the bahiagrass pasture. Sid Brantly is providing excellent assistance to plan and establish the project.
- The Agroforestry Institute has tentatively agreed to provide funds to hire a graduate student to assist with the collection of data for the grazing and silvo-pasture demonstrations during the summer. The graduate student will be hired from an 1890 university, either Ft. Valley State University or Tuskegee University.
- **Alternative Crops** – The joint alternative crops project for small farmers with USDA- ARS has been planted at the PMC. The seed was provided by ARS Plant Introduction Station in Griffin, GA
- **Carbon Sequestration Long Term Study** – Plots have been flagged and warm season cover crops has been planted for the Carbon Sequestration Study. Cool season cover crops will be planted in October. Soil samples have been taken to obtain readings on organic matter, bulk density, aggregate clay and infiltration. Dr. Mark Latimore is a collaborator and has agreed to perform tests on soil samples. Dr. Lee Norfleet with the National Tillage Lab in Auburn has agreed to collaborate as advisors.
- **Mixed Native Grass Study** – A mixed native warm season grass study that consists of indiagrass, big bluestem and switchgrass was planted last month at the PMC. The objectives are to develop the plant technology for establishing and managing mixed stands of native grasses in the Southeast; to determine forage quality and quantity; and to determine optimum seeding rates to maintain adequate stands and persistence of the mixed stands.



Silvopasture Tour – A Success

Plant Materials Silvopasture Tour of George Owens Farm in Chipley, Florida in May was a success. Approximately 60 people attended which included small farmers, NRCS, EPA and University Extension Specialists from four states. The universities that participated were Tuskegee, Fort Valley, Florida A&M, South Carolina State and University of Florida.

The silvopasture methodology offers diversity for small farmers by providing income opportunities from timber products, forages and livestock. From a conservation point of view this practice impacts water quality by reducing soil erosion, and addresses other resource concerns, such as, nutrient management and carbon sequestration.

Dates of Plant Materials Events

- Sept. 5, 2001 – Plant Materials for Riparian Buffers Workshop
- Sept. 20, 2001 - PMC Advisory Committee Meeting, Jimmy Carter PMC
- Nov. 16-17, 2001 - Small Farm Expo, Kennedy Farm, Metter, GA

For more information visit our homepage at <http://www.ga.nrcs.usda.gov/ga/pmc> or the Plant Materials Program website at <http://www.Plant-Materials.nrcs.usda.gov>.

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